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(54) **SYSTEM AND METHOD FOR DATA FEED ACCELERATION AND ENCRYPTION**

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(58) **Field of Classification Search** 341/51, 341/50; 370/355; 380/212; 709/238; 358/400; 345/419; 714/752
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,302,775	A	11/1981	Widergren et al.
4,394,774	A	7/1983	Widergren et al.
4,574,351	A	3/1986	Dang et al.
4,593,324	A	6/1986	Ohkubo et al.
4,682,150	A	7/1987	Mathes et al.
4,730,348	A	3/1988	MacCrisken
4,754,351	A	6/1988	Wright
4,804,959	A	2/1989	Makansi et al.

(Continued)

FOREIGN PATENT DOCUMENTS

DE   4127518   2/1992

(Continued)

OTHER PUBLICATIONS

Rice, Robert F., "Some Practical Universal Noiseless Coding Techniques", Jet Propulsion Laboratory, Pasadena, California, JPL Publication 79-22, Mar. 15, 1979.

(Continued)

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(57) **ABSTRACT**

The transmission of broadcast data, such as financial data and news feeds, is accelerated over a communication channel using data compression and decompression to provide secure transmission and transparent multiplication of communication bandwidth, as well as reduce latency. Broadcast data may include packets having fields. Encoders associated with particular fields may be selected to compress those particular fields.

30 Claims, 6 Drawing Sheets